## LEAP/SLEAP AWARD PROCESS TEST PLAN

DEPARTMENT OF
EDUCATION - STUDENT
FINANCIAL ASSISTANCE FINANCIAL MANAGEMENT
SYSTEM

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#### 1.0 LEAP/SLEAP AWARD PROCESS ACCEPTANCE TESTING OVERVIEW

Acceptance Testing is the final functional test of the system prior to production, and verifies that the system meets the documented user requirements. Business functions and system functions (i.e. batch processing, system security features, etc.) are executed in an isolated and controlled environment to validate that a quality system is ready for production. User procedures, workflow and other process definitions define the test conditions in Acceptance Testing. The systems business events are examined from the user or business perspective, rather than attempting to test every possible condition from the design perspective.

The main purposes of Acceptance Testing are to:

- Test processing cycles in the system to ensure the results meet users' requirements in as close to the business environment as possible.
- Obtain review that the system functionality is adequately exercised.

Entry Criteria for Acceptance Test Execution:

- All applications and application components necessary for Acceptance Testing have been inventoried and promoted.
- Acceptance Test plan has been completed.
- Resources to execute test are available.
- Results for prior testing phases are available.
- The Acceptance Test environment is in place and test configuration baseline is under CM control.

Exit Criteria for Acceptance Test:

- All Acceptance Testing scripts and cycles have been executed successfully.
- Identified errors and defects have been corrected and re-tested.
- All issues and incidents have been properly documented and worked through the resolution process.
- All reviews were conducted and that the review yields satisfactory results.

#### 1.1 LEAP/SLEAP AWARD PROCESS ACCEPTANCE TEST SCOPE

The Leveraging Education Assistance Partnership Program (LEAP Program) and Special Leveraging Education Assistance Partnership Program (SLEAP Program) Acceptance Test cycles will be based on the business requirements for the LEAP/SLEAP Award Process. They include the following:

Security

LEAP/SLEAP Award Process Test Plan 05/04/01 - version 1.0

 Verify that user security is established such that each State/Territory only has access to their data.

#### • Accounting Management

1. Maintain Account Mapping table for awards/award reallocations.

#### • Awards Management

- LEAP/SLEAP Financial Partner Office maintains Business Rule information.
- 2. Compute LEAP/SLEAP Award amounts.
- 3. Import/post award information into GL.
- 4. Generate Award Report.
- 5. Generate Grant Award Notification Report. (New and Adjustment)
- 6. Generate Requested Funds Report.

#### • Reports Management

- 1. LEAP/SLEAP Award Report
- 2. Grant Award Notification Report (New and Adjustment)
- 3. Account Mapping Report
- 4. Requested Funds Report

#### 1.2 LEAP/SLEAP AWARD PROCESS ACCEPTANCE TEST SCHEDULE

The Acceptance Test execution phase involves executing each of the test cases and comparing the actual results with the expected results. Execution of the Acceptance Test cases may sometimes occur more than once during the test execution phase, since discrepancies will be identified and fixed during this phase. Acceptance Test cases will be executed until no discrepancies are found. Execution of Acceptance Testing for the LEAP/SLEAP Award Process will occur from May 10, 2001 through May 25, 2001. Review and analysis of Acceptance Test Results will be conducted from May 21, 2001, through May 30, 2001. The chart below provides details on the LEAP/SLEAP Award Process Acceptance Test schedule.

Acceptance Test Schedule							
Award Process							
ID	D Task Name Start Date End Date Responsi						
	Acceptance Test Schedule	04/25/01	05/25/01				
1	Test Region Available		05/07/01	FMS Technical			

	Acceptance Test Schedule						
Award Process							
ID	Task Name	Start Date	End Date	Responsible			
				Support Team			
2	Establish User Ids/Security		05/08/01	FMS Technical			
				Support Team			
3	Build/Configure System		05/09/01	Business			
				Requirements/			
				Software			
				Architecture			
				Teams			
4	Define Test Conditions	04/25/01	05/01/01	Gerrans, Herron			
5	Define Test Cases	05/01/01	05/18/01	Gerrans, Herron			
5.1	Define LEAP/SLEAP Test Cases	05/01/01	05/08/01	Gerrans, Herron			
5.2	Define Regression Test Cases	05/14/01	05/18/01	Herron, Malleck			
6	Execute Tests & Resolve Problems	05/10/01	05/25/01	FMS Test Team			
6.1	Execute LEAP/SLEAP Tests	05/10/01	05/25/01	Gerrans, Herron,			
				Townsend			
6.2	Resolve LEAP/SLEAP Problems	05/20/01	05/25/01	Gerrans, Herron,			
				Townsend			
6.3	Execute Regression Test	05/21/01	05/22/01	Hong, Malleck,			
				Marks			
6.4	Resolve Regression Test Problems	05/24/01	05/25/01	Hong, Malleck,			
				Marks			
7	Finalize Documented Test Results	05/28/01	05/29/01	Malleck,			
				Townsend			

### 1.3 LEAP/SLEAP AWARD PROCESS ACCEPTANCE TESTING ROLES AND RESPONSIBILITIES

Staffing for Acceptance Testing involves both FMS Implementation Team and SFA personnel. The primary roles for the Acceptance Testing effort include Test Team Analyst and SFA-FMS Test Liaison. These roles are described below:

#### 1.3.1 TEST TEAM ANALYSTS

- Assist in the development of the Acceptance Test Plan.
- Execute the Acceptance Tests.
- Evaluate Acceptance Test results.
- Report all incidents and problems encountered during testing activities.

 Conduct regression testing to validate changes to the application software and/or configuration. Regression testing will consist of the testing of the suite of programs and affected sub-systems following program modification.

The FMS Phase II Test Team is comprised of a cross section of SFA employees as well as FMS Implementation Team employees.

- Mr. Greg Gerrans, SFA
- Ms. Cynthia Heath, SFA/FMS Implementation Team
- Ms. Constance Herron, FMS Implementation Team
- Ms. Candice Hong, SFA
- Mr. John Kim, FMS Implementation Team
- Mr. Stephen Malleck, FMS Implementation Team
- Mr. William Marks, SFA
- Mr. Ryan Townsend, FMS Implementation Team

#### 1.3.2 SFA-FMS TEST LIAISON

- Participate in the formal walkthrough of the Acceptance Test Plans.
- To define Acceptance Test scripts and cycles.
- Record all incidents and problems encountered during testing activities.
- Monitor the testing process to identify problems, mitigate potential risks and schedule slippage.
- Review test results with the test team to clarify questions, concerning system
  functionality and discrepancies with expected results, and ensure that the
  Acceptance Testing activity was a valid and complete exercise.
- Certify that the testing process is comprehensive in scope and is complete.

Ms. Cynthia Heath will be the SFA-FMS Test Liaison.

#### 1.4 EXECUTING AND VALIDATING TEST CASES

A test case is a discrete, executable step that will return a predictable result. Test Cases are made up of a setup, input, and expected result sections. A test case is designed to verify the functionality of a business scenario. A test case describes step by step how the business scenario is being tested.

The Test Team Analyst will be responsible for Acceptance Testing. The Test Team Analyst will update the appropriate Acceptance Test Log (see Exhibit 1) when conducting Acceptance Testing. Validation of a test script will occur when the specific test activity has a status of "Pass" and is reviewed by the SFA-FMS Test Liaison.

#### 1.5 INCIDENT AND PROBLEM REPORTING/TRACKING

Any incidents or problems that are related to Acceptance Testing will be recorded by the Test Team Analyst and will be reported to the SFA-FMS Test Liaison. An analysis of the incident will be performed to determine if the problem was caused by:

- Bad test data;
- A problem in the test environment;
- An incorrectly run test script;
- · A misunderstanding of what the system really should do.

If necessary, the incident will be forwarded to the business requirements, software architecture or technical support team for solution.

Incidents or problems will be recorded using the "SFA Mod Partner – Issue Tracker" database (see Exhibit 2). The "SFA Mod Partner – Issue Tracker" is designed to capture as much information as possible to relay to the business requirements, software architecture or technical support team. This information will enable recreation of the situation. Test Team Analysts completing a "SFA Mod Partner – Issue Tracker" report should:

- 1. Write down a description of the symptoms that occurred and the test execution steps leading up to them. Note, the date and time of the discrepancy.
- 2. Print the screen(s) that illustrate the error that is occurring
- 3. If this is a "show stopper" that prevents you from continuing to test, escalate the problem to the SFA-FMS Test Liaison immediately.
- 4. If the problem isn't severe, log the information and keep going.

#### 1.6 PROBLEM DIAGNOSIS AND RESOLUTION

A "discrepancy" is a difference between what was *expected* to happen and what *actually* happened. Discrepancies are initially evaluated to ensure that they represent system defects. The initial evaluation of discrepancies includes:

- Review of the test data:
- Review of the test environment;
- · Review of test scripts;
- · Review of actual system functioning.

If it is determined that the "discrepancy" represents a system defect. The incident will be forwarded to the business requirements, software architecture or technical support team for assessment and proposed solution. After successfully testing the modification, the incident will be designated as "closed" by the SFA-FMS Test Liaison.

#### 1.7 REVIEW AND VERIFICATION OF TEST RESULTS

The actual test results will be compared to the expected results to determine if the test ran correctly (or incorrectly). At the completion of each test activity the Test Team Analyst will evaluate the status of the activity as "pass" or "fail". Acceptance Testing is considered complete when each test activity has a status of "pass" " and is reviewed by the SFA-FMS Test Liaison.

#### 1.8 TEST DATA

Sample data will be gathered from the following programs:

- Leveraging Education Assistance Partnership Program (LEAP Program) / Special Leveraging Education Assistance Partnership Program (SLEAP Program), and
- SFA Operations (for Phase II Regression Testing).

#### 1.9 TEST SCRIPTS

A test script is a collection of related test cases, put into a sequence. A test script describes how a group of test cases will be executed as a single entity.

#### 1.10 TEST CYCLES

A test cycle is a collection of test scripts, put into a sequence. A test cycle describes how a group of test scripts will be executed.

#### 1.11 LEAP/SLEAP AWARD PROCESS ACCEPTANCE TEST RESULTS

The review of the Acceptance Test Results will be include, but not be limited to the following:

- description of cycles
- what constitutes test "pass"
- number of cases processed and passed
- review issues and incidents that required resolution or still require resolution
- review process
- stipulate process for module promotion to production environment

#### **EXHIBITS**

-

# Business Process/Application Area being tested: Test Performed by: Phone: E-Mail Address: Test Reviewed by: Phone: E-Mail Address: Test Date Cycle/Script/ Case ID# Condition Description Expected Results Actual Results Explanation

Reviewer's Sig	gnature:		_	
Date Reviewed	d:		<u> </u>	
LEAP/SLEA	P Award Proces	ss Test Plan		
05/04/01 - ve	rsion 1.0			

EXHIBIT 2 – LEAP/SLEAP AWARD PROCESS OPEN ISSUE REPORT

Assigned Open Issues							
Issue Number			Issue Description	Impact	Also Assigned	Decision By	
Number	Priority:	High Medium Low					
	Created:	mm/dd/yy					
	Due Dt:	mm/dd/yy					